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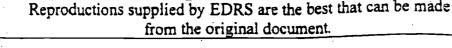
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ABSTRACT

This paper provides a suggested teaching model enabling students to conduct extensive, hands-on survey research as the basis of part or all of a political science class. The model emphasizes active student learning and development of applied skills. The components of this model can be modified for use in a broad array of undergraduate political science courses, such as political science methods, campaigns and elections, public opinion, and public policy. The focus of the paper is on aspects of the model that allow for student training; questionnaire creation; development of interviewing/oral communication skills; data collection; entry and analysis; and issues of statistical interpretation. Noting that the nature of this type of learning experience may not lend itself well to traditional modes of student evaluation, special attention is given to the issues of establishing evaluation mechanisms for student performance. (Author/BT)



Public Opinion Research as a Basis for Student Learning: A **Suggested Teaching Model**

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Abstract

This paper provides a suggested teaching model enabling students to conduct extensive, hands-on survey research as the basis of part or all of a political science class. The model emphasizes active student learning and development of applied skills. The components of this model can be modified for utilization in a broad array of undergraduate political science courses, such as political science methods, campaigns and elections, public opinion, and public policy.

The focus of the paper is upon aspects of the model which allow for student training; questionnaire creation; development of interviewing/oral communication skills; data collection, entry and analysis; and issues of statistical interpretation. Special attention will also be given to the issue of establishing evaluation mechanisms of student performance.



Introduction

The suggested model presented below developed out of an initial social political research project focusing on a county-wide (Westchester County, New York) telephone survey regarding social and political issues. Students were recruited from various disciplines, paid a stipend for their participation and were actively involved in all phases of the research process. Students collected data via telephone surveys after receiving training on basic interviewing and communication skills. Students also participated in questionarre construction and data collection, coding, entry and analysis.

After completion of this project, the involved faculty members realized the potentially significant educational benefits students can receive through involvement in similar research exercises applied in actual courses, such as social science methods or upper division political science classes. Among the most important of these benefits is providing students with a "real life" experience whereby they can develop useful skills and a better understanding of and appreciation for the research process. Additionally, the faculty members casually observed that participating students were highly engaged in the overall process and found the work to be both interesting and challenging. We believe such student sentiments, if channeled properly, can lead to higher degrees of student satisfaction with a particular course, the political science discipline, and contribute to a more positive overall college experience.

This paper (and it's corresponding conference presentation) is intended to share the author's experiences and perspectives and to propose a possible model for utilization of some or all of the components of the polling/survey process into an upper division undergraduate or graduate political science course. The following analysis includes a brief mention of some key literature, a description of the primary components of the employed polling method, and suggestions for establishing student performance evaluation criteria.

Some Relevant Literature

Works from the education literature, and to some degree the psychology literature, examine topics regarding the nature of the educational process and student learning. The following brief review essentially draws from some of this literature while focusing upon the two primary educational benefits of our proposed model; 1) engaging students in active learning while creating a positive educational experience, and 2) developing "real life" skills through critical thinking.

-Engaging students in learning while creating a positive educational experience-Ernest Boyer noted in his widely renowned Carneige Foundation Report on the advancement of teaching noted, among many other things, that students enter college with very high expectations. They, along with their parents, expect "something special" from the college experience (Boyer, 1987). But, key



questions quickly jump to mind; how may the college experience come to be seen as special?; what factors lead to a positive experience for students?

Much of the research in this area focuses upon the importance of integrating students into the academic environment and intellectual process (See Christie and Dinhome, 1991; Johnson, et.al., 1995; Tinto, 1993). Faculty play a central role in this integration process through engaging students in a challenging and interesting academic program. For example, Smith (1977) argues that academic involvement both in and out of the classroom is strongly related to student satisfaction and success. Smith continues that faculty encouragement along with other factors such as peer interaction is essential to student development. Not surprisingly, developing good academic exercises is related to student integration, satisfaction and even retention.

Pascarella and Terenzini (1991) also note the centrality of the role of faculty in student development and retention. Their research indicates that students believe faculty members should help them achieve their goals. If the faculty exhibit skill in teaching, good rapport, structured classrooms, good interaction skills, and the willingness to give ongoing feedback to students, then there is a greater chance that students will become engaged in the intellectual process and the larger academic community. In sum, good pedagogical skills and clear organization were key factors, perceived by students, for achieving success.

The model outlined below offers several opportunities for integrating students into a challenging intellectual process and for enhancing pedagogy. The possibility of student integration is high because the survey process requires a significant degree of instructor contact and peer interaction inside and outside of the classroom, particularly during the actual calling/interviewing of participants. We found that both students and participating faculty quickly develop a positive rapport with one another during the entire process. Pedagogy is also enhanced because the process allows for a broad array of techniques that reinforce student learning.

-Developing "real life" skills-

The teaching model explained in this paper provides the opportunity for experimentation beyond a traditional mode of instruction and learning by lecture to an environment where students can develop critical thinking skills by experiencing the research process first hand. In our model, students actually create the survey, do the interviews, collect and enter data, and analyze the results which cumulatively provides a rich and experiential based context to apply knowledge. As O'Rorke has argued, linking critical thinking exercises to contextual learning is key to overcoming the argument that only courses or exercises which teach "practical skills" are worthwhile to students (O'Rorke: 15) Moreover, O'Rorke notes,

"Students tend to be somewhat short sighted in their perspective on the value of college courses. It is commonplace for students to evaluate the context of courses based on their perspective of the course's relevance to their future employment opportunities. Those courses, and components of



courses, which they believe will directly enhance their employment opportunities are taken more seriously and engaged in more conscientiously. Those elements of the course, and curriculum for that matter, for which students cannot discern direct impact on their future prospects are treated more casually and with less enthusiasm. Students are conditioned to think that "practical," technical skills are most important to future success and thus, undervalue the worth of exercises and projects which attempt to develop higher level thinking skills over the long term." (O'Rorke:14)

Thus, it is a major challenge to the college instructor to create mechanisms which allow students to learn while linking this learning process to the context of students' experiences. Our model provides such a linkage because substantive knowledge is wedded to the students' experiences in conducting an actual survey.

Our model provides a linkage between knowledge and experience as well as allowing for the development of critical thinking skills. Young (1980) has recited several learning activities that comprise critical thinking, such as; the ability to define a problem, the ability to select pertinent information for a solution, the ability to recognize assumptions, and the ability to draw valid inferences and conclusions. As will be demonstrated, the development of these critical thinking shills is an inherent part of the model described below.

Key Components of a Suggested Teaching Model

One of the first things that should be emphasized with students is the fact that surveys/polls are commonplace in academic research across many disciplines as well as in the public and private sectors. Many examples of the different types of polls should be discussed (see The Survey Kit series published by Sage Publications, 1995). However, students should also be required to think about some of the problems and limitations of surveys, particularly political opinion polls. For instance, public opinion can change rapidly thereby limiting the applicability of polling results over time. A full discussion of survey research limitations is absolutely necessary.

Next, since polling involves several interrelated steps, each component of the polling process should be clearly broken-down and explained to students prior to the undertaking of an actual survey or project. A suggested breakdown could be as follows:

- 1. determining focus and objectives of the survey,
- 2. developing survey questions (questionnaire construction),
- 3. student training in conducting survey research,
- 4. understanding key statistical issues,
- 5. data collection, entry and analysis,
- 6. evaluating student performance.

The following analysis focuses upon these steps.



-Determining objectives and questionnaire creation-

Objectives of the survey need to be agreed upon before the construction of a survey instrument or questionnaire. An instructor can pre-determine an objective given what he/she thinks would be appropriate, perhaps focusing upon a local election or compelling policy issue. Alternatively, the instructor can allow students to make suggestions and then arrive at some consensus. This latter approach would allow for greater student involvement and perhaps wed them to the project early on in the process. In any event, an instructor has to make a professional assessment of how much involvement he/she wants in the setting of the objectives. Once an objective has been clearly specified, the next step is to develop the appropriate survey instrument/tool.

In the development of a sound survey tool, one does not have to reinvent the wheel. In many instances, there are a number of good survey tools currently in use whereby one may pick and choose items that are relevant to their own interests. In this process one must be careful of copyright restrictions since some questions may be in the public domain while others may not. Obviously, it is always wise to check with the author for permission to use his/her items.

Regardless of the source of the items there are some common errors that must be avoided. What follows is a brief, but not exhaustive, list of things to be avoided.

- 1. Survey items must be worded in an unambiguous manner. One should avoid using words such as may, might or possibly. "Do you agree or disagree with the following statement. Inflation may become a problem in the coming year." A more specific question would be, " Do you think that inflation is a problem?"
- 2. Questions should be clearly stated avoiding the use of technical language. "Do you agree or disagree with the following statement. Greater state funding for prisons will reduce the **subculture of violence** amongst the prison population." Always assume your audience is intelligent, but uninformed about a given topic.
- 3. Questions should be objective. "Should we spend money to educate America's children?" This is a bad question because there are probably very few people who would answer in the negative. This is a "loaded" question, and such questions should be avoided. Such a question would have to be specified.
- 4. Avoid the use of "Double Barreled" questions. "Should government spend more money on health care and less money on drug rehabilitation programs?" This question does not allow for people with two different views on the two issues linked in the question.
- 5. Avoid the use of negative questions. "New York State should <u>not</u> give benefits to new immigrants." This type of question is often misheard during a telephone survey.

There are some additional characteristics good survey questions should posses.

- 1. Shorter questions are better than longer questions.
- 2. Questions should be relevant to the population under study.



3. Questions should be worded in such a way that respondents are willing to answer.

Anyone interested in more details on question construction should see E. Babbie *The Basics of Social Research* Belmont: Wadsworth Publishing Co., 1999: pp. 126–138.

It is common practice among researchers to undertake a "pilot study" prior to doing the actual research survey. A pilot study administers the survey instrument to a small number of respondents. After this is completed the researchers can analyze the pilot experience looking for problematic questions. These questions may be reworked or eliminated.

-Student training and skill development-

Students who participated in our initial project were selected based on criteria that included a relevant major (social sciences) and demonstration of strong oral communication skills. Actual classes of certain upper-level major courses, such as social science methods, were also incorporated into the phone interviewing portion of this project. Even though the initial project was not conducted as an actual course, the requisite training of students would still be identical.

Students were required to participate in a training session on proper phone etiquette and interviewing skills. The training session focused on teaching students helpful strategies to enhance the likelihood of a successful phone interview. These strategies included the use of a standardized opening statement for each interviewer to read and rehearse. The prepared statement was used to eliminate any hesitation by the interviewer in the vital first few seconds of a call. The rehearsal of this statement also allowed for the interviewer to reduce the number of verbal errors while making the student more comfortable with the survey process.

A key phone interviewing strategy taught involved the tone of voice used and the building of a rapport with a possible participant. Students were encouraged to use a friendly, non-threatening voice when attempting a phone survey interview. The interviewers were also taught to emphasize that they were *students* from the College, since we found that people are more inclined to help a student, especially from an area school. The students were also instructed to establish an immediate rapport with the possible participant by stating their first name in their opening sentence, to avoid an overly formal tone.

Another strategy utilized in this project was to include reassuring comments during the interview. The students were told to be honest with the possible participant from the beginning, for example, by explaining to participants that it would take approximately 10 minutes to complete the survey (this time would be considerably shorter if the survey is only a few questions). The interviewers were also encouraged to make it clear to the possible participant that their responses were confidential, the information would not be made available for sales purposes or to telemarketers, and that their phone number was selected by a random sampling of phone numbers and would not be reused. By addressing these issues in the beginning of the interview, the student was



attempting to eliminate any apprehension that the possible subject might have had about participating and to increase the overall number of completed surveys.

Some students became very adept at convincing phone respondents to participate, especially those individuals who were initially hesitant to participate. For example, students emphasized that the interview was for educational purposes or students frequently asked to call a respondent back if they were busy at the time of the initial call (many participants would just take the time at the moment instead of anticipating a call back). Other students emphasized the political and practical importance of the poll whereby public opinion is measured and reported which may, in turn, impact on elected officials and public policy. On this last point, it is imperative to prevent students from debating the merits of polling with a prospective participant. In such an event, thank the caller and move on to another call.

Students were also trained on additional techniques to help maximize the chances of successfully completing an interview. Interviewers were taught to maintain a participant's interest in the survey by reassuring that they were nearing the end of the survey after a couple of minutes interviewing. The interviewers were also reminded to read each question slowly and clearly and be willing to repeat each question as many times as necessary without indicating any annoyance. A good technique would be to tape record a student, play the recording back to them, and have them identify any unclear elements of their speech.

The interviewers were cautioned to strictly refrain from interjecting their own opinions about the issues being discussed in the survey. Students were also directed not to explain or to provide additional information concerning any of the political questions or political candidates mentioned in the survey. This was done to eliminate any possible effects of the interviewer's opinions on the participant.

The interviewers were also trained to be courteous and polite throughout the phone interview. They were told to thank the participant for their assistance after completing a survey. Students also thanked a person for their time, even if they did not want to participate.

Faculty members encouraged students to adopt a style that suited them best and that was flexible enough to incorporate the above mentioned strategies. Overall, the average response rate was about the same for most students.

-Understanding statistical issues-

Students who participate in experiential learning revolving around the development and execution of a telephone survey can be expected to have statistical questions. This list of questions may include several of the following: "If we want to survey the city of X, rather than all of Y County, or State Z, how much smaller is the required sample size?" "What does it mean when you say the difference between two groups is significant?" "Is there a difference between significant differences and important differences?" and "How good is the sample we collected?" The answers to these questions will provide students with the



basic understanding of applied statistics that every social scientist should possess.

Students are always surprised to learn that there is no difference in the sample size required to survey a large city, the county in which the city is located, a state or an entire nation. To begin to understand why this is true, consider a study in which the height of the participants is recorded. If you were told that a single subject was drawn from the participants and that the person was 6'7" tall, you might comment that the person was tall but would have no reason to question the result. However, if you were told that 100 participants were drawn and that their average height was 6"7", you would question the validity of this result. Why? Because your experience tells you that the average height of a group of 100 people will be closer to the true average height than the result reported. That is, the larger the group the more representative of reality you expect its results to be. Notice that the question and criticism of results arose without knowing if a town, city or state was being surveyed. Thus, it seems that it is the size of the sample that determines its chance of being representative of a population, and it seems that that size is not dependent on the size of the population being studied. The reason for the truth of this statement lies in the fact that a sample of any size is a quality sample if it is representative of the population from which it is drawn. Thus, when determining the sample size needed, one must only calculate the size needed to insure a representative sampling.

When reviewing the results of an involved survey it is possible that a student might see a report statement similar to the following, "The difference of 7.3% between the views of males and females on the need for better after-school programs was statistically significant." To appreciate this statement students must be informed that the assumption that underlies all the analyses is that there is, in truth, no difference between groups and any observed differences are due to the natural variability in samples. This natural variability produces a range of results, since each sample contains a different set of subjects. When samples large enough to be considered representative are taken some results, those close to the true population value, occur frequently. Others, those far away, occur less frequently. Students must understand that the above report statement implies that this observed difference is considered too large to be reasonably explained by natural sampling variation. That is, the observed difference happens so infrequently by chance that we are more comfortable attributing the result to real differences in the attitudes of males and females rather than to sampling variation under the original assumption that the attitudes of males and females are the same.

Consider a situation in which the 14% difference between the 64% of the males and 78% of the females who stated they would vote for candidate A is significant. Is this difference important? Not to candidate A. During the classroom discussion of this point it is interesting to show students how dependent significance is on sample size. Using appropriate technology students can see that the 1.5% difference between 2.5% and 4.0% is not significant if these numbers are generated by a sample of size 200 (5/200 &



8/200), but is significant when generated by a sample of size 2000 (50/2000 & 80/2000). These examples clearly illustrate that significance is a statistical concept, while importance is a practical matter.

The final question that will be investigated is that of sample quality. One of the first things that students participating in survey work observe is the number of no answers and refusals. They often ask if they should call back these numbers at a later time. They are usually surprised to hear the answer to this question is an unqualified YES. It is this short exchange which suggests the need for a discussion of randomization and sampling bias. Students should be informed of the procedures used to generate the telephone lists they are using to make their calls. This discussion should include an exercise in which students use random number tables or random number generator to create several lists of random subjects from a population with known characteristics. For example, a list of 100 names, of which 10 are identified as having green eyes, can be used as the population to be sampled. Students can be asked to draw 5 lists each containing ten random names. The concept of bias and sample variation can then be illustrated using these student generated lists. Finally, the potential bias due to non-response should be discussed.

The classroom time spent on the questions and concepts reviewed above will provide the students with a solid grounding in the basic statistics of sampling and will provide them with a deeper appreciation of the survey process in which they have participated.

-Data collection, entry, analysis-

Data collection took place over a two-week period in the Spring of 1999. Paid student volunteers made phone calls to randomly chosen Westchester county residents weekday evenings between the hours of 4:00 p.m. and 9:00 p.m., and Saturday between the hours of 10:00 a.m. and 5:00 p.m. Students who were enrolled in various research methodology courses also volunteered to make calls at various times. The list of random Westchester county residents was provided by a professional service specializing in survey methodology. In all, 603 survey forms were completed within this timeframe. This number met the design goal of 601 completed surveys and thus provided the ± 4% margin of error sought.

Data entry was done shortly after completion the surveys. Each student volunteer entered data onto a SPSS spread sheet and saved that database in a file named with their initials. SPSS is a commonly available and widely used statistical program. Once all the data had been entered in this manner the files were merged into a master database. After a brief tutorial, students reported that data entry in SPSS was easy and could be done quickly. A feature of SPSS that weighted heavily in its favor was its Value Label feature that is easily understood and implemented. This feature allows the data entry team to create labels for common answers to a question, i.e. 1 = Democratic, 2 = Republican, 3 = Independent, etc. Then, at the time of data entry, the label rather than the literal response can be typed into the database. When viewing the data the researcher can request to see either the label or literal response. This proved to be a great time saver.



The primary purpose of this survey was to develop descriptive measures of Westchester county residents' attitudes and opinions toward a variety of political and social issues. Thus, the analysis of the results of this survey consisted primarily of descriptive statistical measures such as counts, percentages and modes. Counts and modes are easily calculated by SPSS using the Frequencies command that can be found in the Summarize submenu of the Statistics menu. The data analyst must simply inform the program of the name of the variables for which counts and percentages are required, click OK and the program does the rest. If modes are required the operator must first check off mode in the statistical options box that SPSS makes available to the user and then proceed as above. CrossTabs are also easily obtained using SPSS. The command that generates crosstabs is also found in the Summarize submenu of the Statistics menu. This type of analysis, for example, can be used to find out how gender can predict voting preferences. Are males more likely than females to vote for Republican candidates? This type of analysis can be taken one step further by examining how two variables, gender and education, influence voting preferences. How do the voting preferences of highly educated females compare to the voting preferences of lower educated males. The SPSS program allows for such an analysis by simply naming the variables that are to be used in the division process and then clicking on OK. The actual analyses that were performed were those requested by members of the research team with specific research questions they wished to have answered. The results of these analyses were summarized in the press releases which are discussed elsewhere in this report.

-Developing student evaluation mechanisms and assignments-

The nature of this type of learning experience may not lend itself well to traditional modes of student evaluation, such as examinations. There are, however, several strategies professors may use to evaluate the performance of students who participate in an experiential learning exercise.

Journal: Students maintain a journal in which they record their experiences and reactions to the polling research process. The journal entries should focus on what they have learned. The professor may review the journal on a weekly basis; or, the journal may be submitted at the end of the semester for evaluation. The basis of evaluation should be on learning outcomes.

Term Paper: Students may be requested to submit a traditional term paper. There are several options that may be presented to students: a) focus on one element of the polling project and offer an extensive analysis of that element including a review of the literature, data presentation and analysis, and the drawing of conclusions. Suggestions for future research should also be included; b) students may be asked to create their own polling project. One semester would not afford them the time to carry out the poll; however, students may create hypothetical questions, and offer an evaluation based upon what hey believe they would find if the poll was to be carried out (the project should include the use of "dummy tables").



Role Play Written Assignments: Students may be put in the position of political consultant or analyst who has been hired to examine a specific area or question and produce a formal report. For example, a political candidate for office wants to know his strongest contingent of potential supporters and what is important to them. This can be given to the students at the beginning of the process whereby they can craft the survey around this final goal.

Press Releases: Throughout the semester, as polling data is gathered, students may be requested to create a series of press releases which report on the key conclusions of the survey. This would give students the opportunity to differentiate between important and less important findings, develop critical thinking skills, and hone their writing skills. One may even decide to actually release the results to the media.

More traditional evaluation techniques can still be employed, such as:

Exams and Quizzes: The professor may develop a series of quizzes or examinations that focus on the polling research process. For example, utilizing the real data collected, and/or fictional data, students may be asked to interpret and analyze the data presented.

An instructor may utilize any one or combination of approaches to evaluate students.

SUMMARY

All the faculty who were involved in the initial project which is the basis of the above model where struck with the high degree of student enthusiasm with the survey. We intuitively felt the need to share our professional experiences because we believe that the proposed model offers some real and innovative possibilities for improving student learning.



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